

**METHOD FOR RECOVERING AND PRODUCING C₄-C₆
DICARBOXYLATE FROM ALKALINE WASTE SOLUTION
GENERATED IN CAPROLACTAM PREPARATION PROCESS**

ABSTRACT

The present invention relates to a method for recovering and producing C₄-C₆ dicarboxylates from an alkaline waste solution generated in a caprolactam preparation process, in which the alkaline waste solution is treated with sulfuric acid to separate into an aqueous phase and an organic phase, allowing valuable substances contained in the organic phase to be firstly oxidized and converted into dicarboxylic acids. The dicarboxylic acids then undergo concentration, esterification and distillation processes, so as to obtain desirable C₄-C₆ dicarboxylates with high purity. This therefore provides an efficient and improved method for effectively recovering most valuable substances from the alkaline waste solution, so that economic benefits in recovery are greatly raised.

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